

included in the application file prior to our payment of the Issue and Publication Fee, and issuance of this patent.

We requested you amend your "Reasons for Allowance" because the reasons, especially in item 2, do not accurately reflect the features and limitations of claims 46 and 47, respectively. In particular, the "Reasons for Allowance" set forth features of claim 46 without recognizing that claim 47 does not include all of the features of claim 46, and the reasons do not recognize that claim 47 does not include certain limitations of claim 46.

The particular distinctions between claims 46 and 47 are set forth in the following:

Claim 47 does not include the following feature of claim 46:

the "electron detector system has an electrode being at the positive electrostatic potential compared to said beam guiding tube, said electrostatic potential generating a strongly localized field within said beam guiding tube so that conversion electrons emitted from said near axis region are extracted by said localized field towards said electron detector system, whereby conversion electrons emitted in other regions than said near axis region are not extracted towards said electron detector system".

Claim 47 does not include the following limitation of claim 46:

that "the region (of the target structure) remote from the optical axis being offset in the direction of the optical axis from the near axis region".

Instead, claim 47 includes the following feature:

that "the deflection system deflecting particles emitted from said sample on varying regions of the target structure".

The above-mentioned distinctions between claims 46 and 47 are not included in the Examiner's reasons for allowance. The above-mentioned distinctions between claims 46 and 47 are underlined in claims 46 and 47, set forth below. The following recitation completely recites the features and limitations of claims 46 and 47, respectively.

46 A detector system for a particle beam apparatus having an optical axis defining a direction and a beam guiding tube, said detector system comprising:  
a target structure arranged within the beam path of said particle beam apparatus, said target structure having a near axis region adjacent to said optical axis and a region remote from said optical axis, said near axis region consisting of a material being strongly electron converting,  
said region remote from said optical axis being off-set in the direction of said optical axis from said near axis region,  
an electron detector system for detecting conversion electrons emitted from said near axis region, said electron detector system being arranged, measured in the direction of said optical axis, closer to said near axis region than to said region remote from said optical axis,  
said electron detector system having an electrode being at a positive electrostatic potential compared to said beam guiding tube, said electrostatic potential generating a strongly localized field within said beam guiding tube so that conversion electrons emitted from said near axis region are extracted by said localized field towards said electron detector system, whereby conversion electrons emitted in other regions than said near axis region are not extracted towards said electron detector system, and

a deflecting system comprising at least an electrostatic deflection field and a magnetic deflecting field, said electrostatic and magnetic deflecting fields being aligned perpendicular to each other.

47 A particle beam apparatus comprising:

a particle source emitting charged particles,

a particle optical system defining a primary particle beam of charged particles emitted by said particle source to irradiate a sample with said primary particle beam,

said particle optical system defining an optical axis and having a beam guiding tube, and

a detector system detecting charged particles emitted by said sample due to said

irradiation of said sample with said primary particle beam, said detection system comprising:

a target structure arranged within the beam path of said particle beam apparatus, said

target structure having a near axis region adjacent to said optical axis and a region

remote from said optical axis, said near axis region consisting of a material being

strongly electron converting and said region remote from said optical axis

consisting of a weakly electron converting material,

an electron detector system for detecting conversion electrons emitted from said near axis

region, and

a deflection system comprising at least an electrostatic deflection field and a magnetic

deflecting field, said electrostatic deflection field and said magnetic deflection

field being aligned perpendicular to each other, and

said deflection system deflecting particles emitted from said sample on varying regions of

said target structure.

In view of the importance of the Examiner's "Reasons for Allowance", Applicant respectfully requests that the Examiner amend the "Reasons for Allowance" in a manner that the reasons are adapted to each of claims 46 and 47, separately. By doing so, the "Reasons for Allowance" will accurately reflect the features and limitations of each of claims 46 and 47, respectively.

Wherefore, it is respectfully requested that the Examiner amend the "Reasons for Allowability", as discussed previously, and include a complete recitation of the features and limitations of claims 46 and 47 in the reasons. Applicant appreciates the Examiner's consideration of this request, and the Examiner's willingness to so amend the Notice of Allowability. It is further appreciated that the Examiner ensure the changes to the "Reasons for Allowability" are properly incorporated into the application file prior to issuance of this patent. Applicant thanks the Examiner for consideration of this request, and his willingness to so amend the "Reasons for Allowability".

Respectfully submitted,



M. Robert Kestenbaum  
Reg. No. 20,430  
11011 Bermuda Dunes NE  
Albuquerque, New Mexico 87111  
Phone (505) 323-0771  
Fax (505) 323-0865

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope with sufficient postage on the date indicated below and is addressed to Mail Stop ISSUE FEE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on January 11, 2006.



M. Robert Kestenbaum

US Patent Application 09/808,714 Attorney Docket (Z) 00022 P US  
Amendment After Allowance submitted by first class mail on 01/11/2006

5